

**REMARKS**

Independent claims 24 and 48 are amended to clarify their features. Claim 25 is cancelled, and thus claim 26 is amended to revise its dependency from claim 25 to claim 24. Claim 29 is cancelled. The amendments find support in the specification as well as in the claim language.

**I. Rejections Under 35 U.S.C. §112**

Claims 24-27, 29-34, 45, and 48-54 are rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. We submit that this rejection is moot in view of the above claim amendments, and request that the rejection be withdrawn.

**II. Rejections Under 35 U.S.C. §102**

*Claims 24-27, 32-34, and 45 are rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Omann (US5,451,003).* We submit the following in traversal of the rejection.

Omann is directed to using reduced shingle materials as a patch for potholes and paving of roads. See Omann col. 1 lines 13-17. Omann discloses that shingles 24 are loaded into material reduction apparatus 28 (a shredder), which creates reduced shingle pieces 32, which are fed into hammermill 38 and reduced to shingle particles 120, and then fed into hammermill 130 to be further reduced into shingle granules 136. See Omann col. 4 lines 25-33. Hammermills 38 and 130 are essentially identical except hammermill 38 has a 3-4 inch screen 68, and hammermill 130 has a screen 132 which is up to  $\frac{3}{4}$  of an inch. See Omann col. 6 lines 57-62. The resulting shingle granules 136 have the characteristics shown in the table of Omann's column 6 (lines 39-46). An optional third conveyor 124 provides additional material 128 (such as shredded tires, glass, or gravel) being stored in bin 126 for mixing with shingle particles 120 (for use in patch or road paving). See Omann col. 6 lines 48-56. The reduced shingle granules 136 (which are smaller) can be bagged or packaged for home use. See Omann col. 7 lines 1-8. Omann is concerned with the size into which the shingles 24 are shredded, and whether separate additional material 128 (which does not result from the shingles 24) may additionally be added to the shredded shingles. **Omann is not concerned with the ratio of asphalt to aggregate in the shingle materials, nor in the shingle pieces 32, nor in the shingle particles 120, nor in the shingle granules 132, nor in any of its steps, and thus Omann cannot disclose all the features of claim 24.**

Regarding claim 24, the Examiner alleges that Omann's gradation test of the granular shingle material 136 (Omann col. 6 lines 36-46) reads on "checking the asphalt-aggregate ratio in the fine material resulting from the separating step." See Office Action page 3. This contention is insupportable for at least the following reasons. The gradation test of Omann is a test of the sieve gradation, and the percentages of granular shingle material 136 able to pass through sieves of different sizes. For example, while 100% of material 136 passes sieve gradation 0.375, only 25% of material 136 passes sieve gradation 0.0029 (#200). See Omann col. 6 lines 39-46. **Omann's sieve gradation test checks sizes and does not check the ratio of asphalt to aggregate. For at least these reasons, the sieve gradation test of Omann cannot teach checking the asphalt-aggregate ratio in the fine material resulting from the separating step, as recited in claim 24.**

Nonetheless, even if *arguendo* the gradation test of Omann were considered to correspond with the checking step of claim 24, Omann does not disclose adjusting, based on the checking step, the ratio of fine material to coarse material which results during the separating step to bring the asphalt-aggregate ratio of the fine material towards the target asphalt-aggregate, as recited in claim 24. The Examiner contends that "changing the screen sizes" reads on adjusting the ratio, but Omann does not disclose changing the screen sizes. See Office Action page 3. Even if, *arguendo*, changing the screen sizes were inherent in Omann, the reference does not disclose that the screen sizes are changed **based on the gradation test** (the alleged checking step). Further, even if, *arguendo*, screens were changed based on the gradation test, Omann does not disclose that the screens are changed **to bring the asphalt-aggregate ratio of the fine material towards the target asphalt-aggregate ratio**. As discussed above, Omann is not concerned with the ratio of asphalt to aggregate in any part of its process, and does not disclose adjusting anything to bring the asphalt-aggregate ratio of one of its materials towards a target ratio.

Furthermore, the Examiner contends that "the addition of other granular material during processing...can be interpreted as controlling the asphalt-aggregate ratio in the fines." See Office Action page 3. The other granular material referred to by the Examiner, however, is the additional material 128 of Omann. The additional material 128 (such as glass, sand, or plastic) does not result from the shingles 24 loaded into the machine of Omann, but are distinct and separately-introduced materials stored in bin 126. That is, additional material 128 does not result from the screens which allegedly read on the separating step of claim 24. As such, the introduction of additional material 128 cannot read on controlling the asphalt-aggregate ratio in the fine material, the controlling step

including adjusting the ratio of fine material to coarse material which results during the separating step to bring the asphalt-aggregate ratio of the fine material towards the target asphalt-aggregate, as recited in claim 24. For at least these reasons, Omann cannot anticipate claim 24.

Claims 26, 27, 32-34, and 45, which depend from independent claim 24, overcome Omann at least by virtue of their dependency. Claims 26, 27, 32-34, and 45 are also patentable by virtue of the additional features recited therein, examples of which follow. For example, regarding claim 27, the Examiner contends that "the shredding devices (38, 138) can be regarded as separations stations." See Office Action page 3. It appears that the Examiner intended to cite hammermills 38 and 130 of Omann as reading on the separating station of claim 27. Even if this correspondence is *arguendo* valid, Omann does not disclose that the changing of screens (the alleged adjusting step) includes one of adjusting the angle of the screen element (**angles are not mentioned in Omann**), providing the screen element with variable-sized openings through which the asphalt-aggregate composition falls, and adjusting the size of said openings (**variable-sized openings which can be adjusted are not discussed in Omann**), and providing the screen element with first and second interchangeable screens having different size openings, and selecting one of said first and second screens for use in the screen element during said separating step (**first and second interchangeable screens which have different size opening and which can be selected are not discussed in Omann**), as recited in claim 27.

The rejection of claim 25 is moot in light of its cancellation.

### III. Rejections Under 35 U.S.C. §103

*Claims 29, 32-34, 48, and 51-54 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Omann in view of Miller (US4,726,530).* We submit the following in traversal of the rejection.

Independent claim 24, from which claims 32-34 depend, is patentable over Omann for at least the above reasons, and Miller fails to cure the deficiencies of Omann. Claims 32-34 are thus patentable at least by virtue of their dependency from independent claim 24.

Regarding independent claim 48, which is rejected over Omann in view of Miller, we submit that Omann fails to teach or suggest the features of claim 48 for reasons analogous to the reasons discussed above with regard to claim 24. The Examiner concedes that Omann does not teach or

suggest the features of claim 48, but contends that Miller cures the deficiencies of Omann because Miller “teaches multiple types of shredders of various sizes ... and, moreover, teaches that the final product size depends on its end use.” See Office Action page 4. Miller teaches that the size of product desired depends on the use of the product. See Miller col. 11 line 49. Miller discloses that “[t]he process of the invention progressively reduces whole tires into smaller pieces of rubber in a series of steps.” See Miller col. 11 lines 53-55. That is, tires are shredded to ever smaller pieces depending on their end use. Miller does not teach or suggest, however, that tires are shredded based on the composition of the shredded pieces, and specifically does not teach or suggest adjusting the first maximum size of shredded material which results during the shredding step **to bring the asphalt-aggregate ratio of the fine material towards the target asphalt-aggregate ratio**, as recited in claim 48. Indeed, like Omann, Miller is not concerned with the ratio of asphalt to aggregate in its materials. As such, Miller fails to cure the deficiencies of Omann, and for at least these reasons independent claim 48 is patentable over Omann and Miller.

Claims 51-54, which depend from independent claim 48, are patentable at least by virtue of their dependency from claim 48. Claims 51-54 are also patentable by virtue of the additional features recited therein.

The rejection of claim 29 is moot in light of its cancellation.

*Claims 30-31 and 49-50 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Omann and Miller in view of Brock (US5,201,472) and Suzuki (JP55142502 A).* We submit the following in traversal of the rejection.

Claim 24, from which claims 30 and 31 depend, is patentable over Omann and Miller for at least the reasons submitted above, and Brock and Suzuki fail to cure the deficiencies of Omann and Miller. As such, claims 30 and 31 are patentable at least by virtue of their dependency. Claims 30 and 31 are also patentable over the cited references by virtue of the features recited therein.

Claim 48, from which claims 49 and 50 depend, is patentable over Omann and Miller for at least the reasons submitted above, and Brock and Suzuki fail to cure the deficiencies of Omann and Miller. As such, claims 49 and 50 are patentable at least by virtue of their dependency. Claims 49 and 50 are also patentable over the cited references by virtue of the features recited therein.

#### **IV. In Closing**

Should the Examiner have any questions or comments with respect to the application, the Examiner is requested to contact the undersigned attorney. The attorney welcomes and encourages

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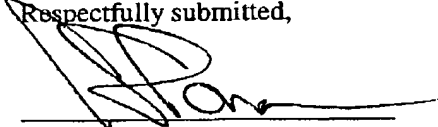
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telephone calls related to this application because this may allow the resolution of disputed claim language and/or other informalities more rapidly and efficiently than by any other means. The Commissioner is authorized to charge any fees or credit any overpayments relating to this application to deposit account number 18-2055.

Respectfully submitted,



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